

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of Dent et al.)	
Serial No.: 09/770804)	
Filed: January 26, 2001)	Group Art Unit: 2631
For: Adaptive Antenna Optimization Network)	Group Art Clut. 2031
Attorney's Docket No: 4015-2041)	
Commissioner for Patents Washington, D.C. 20231		

REVOCATION AND POWER OF ATTORNEY WITH STATEMENT UNDER 27 CFR 3.73 (b) AND CHANGE OF CORRESPONDENCE ADDRESS

Sir:

Ericsson Inc., a corporation, certifies that it is the assignee of the entire right, title and interest in and to the above-entitled U.S. patent application, and the invention disclosed therein, by virtue of the assignment from the inventor(s) to Ericsson Inc. recorded in the Patent and Trademark Office at Reel/Frame 011561/0967. A copy of the assignment is attached hereto.

The undersigned has reviewed all the documents in the chain of title of the patent application identified above and, to the best of undersigned's knowledge and belief, Ericsson Inc. is the assignee of the entire right, title and interest in the U.S. patent application identified.

Ericsson Inc. hereby revokes all previous Powers of Attorney and appoints as my attorneys and/or agents with full power of substitution and revocation, to prosecute this application and transact all business in the United States Patent and Trademark Office, and in countries other than the United States, and to do all things necessary or appropriate therefore before any competent International Authorities in connection with any international patent application(s) corresponding to the above-identified application, all of

02/19/02

the registered practitioners of the law firm of Coats & Bennett, P.L.L.C. identified by Customer Number 24112:



24112
24112
PATENT TRADEMARK OFFICE

and the following Ericsson Inc. attorneys and/or agents: Stephen A. Calogero, Reg. No. 41,491; Dennis J. Williamson, Reg. No. 32,338; Mark C. Terrano, Reg. No. 40,200; Jon Han, Reg. No. 41,403; Sidney Weatherford, Reg. No. 45,602; and Roger Burleigh, Reg. No. 40,542.

Please address all future correspondence to

David E. Bennett Coats & Bennett, P.L.L.C. 1400 Crescent Green, Suite 300 Cary, North Carolina 27511

Please direct all telephone calls about this application and the resulting patent to:

David E. Bennett

Telephone: (919) 854-1844

The undersigned is empowered to sign this statement on behalf of the assignee.

Date

Dennis J. Williamson, Registration No. 32,338

Associate General Counsel

511 Davis Drive Research Triangle Park, NC 27709

Tel: (919) 472-1641 Fax: (919) 472-7449

4015-2041



UNITED STATE DEPARTMENT OF COMMERCE Patent and Trademark Office ASSISTANT SECRETARY AND COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231

MAY 14, 2001

PTAS

BUCHANAN INGERSOLL BRYAN H. OPALKO ONE OXFORD CENTRE, 20TH FLOOR PITTSBURGH, PA 15219



UNITED STATES PATENT AND TRADEMARK OFFICE NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 03/01/2001

REEL/FRAME: 011561/0967

NUMBER OF PAGES: 28

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

DENT, PAUL W.

DOC DATE: 01/24/2001

ASSIGNOR:

HOLSHOUSER, HOWARD EUGENE

DOC DATE: 01/18/2001

ASSIGNOR:

PHILLIPS, JOHN CHARLES

DOC DATE: 01/22/2001

ASSIGNOR:

DOLMAN, ROD

DOC DATE: 01/23/2001

ASSIGNOR:

BOESCH, RON D.

DOC DATE: 01/19/2001

DØ4

011561/0967 PAGE 2

ASSIGNEE: *

ERICSSON, INC.
7001 DEVELOPMENT DRIVE
P.O. BOX 13969
RESEARCH TRINAGLE PARK
NORTH
CAROLINA
27709

SERIAL NUMBER: 09770804

PATENT NUMBER:

FILING DATE: 01/26/2001

ISSUE DATE:

MARGARET LASALLE, PARALEGAL ASSIGNMENT DIVISION OFFICE OF PUBLIC RECORDS

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50RM PTO-1619A Expres 08:30/29 OMB 0651-0027	03-12-2001 U.S. Department of Commerce Patent and Tradement Office PATENT
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3-1-01 RECOI	RDATION FORM COVER SHEET
	PATENTS ONLY marks: Please record the attached original document(s) or copy(les).
Submission Type	Conveyance Type
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Resubmission (Non-Recordation) Document 10#	License Change of Name
Correction of PTO Error Reel # Frame #	Merger Other
Corrective Document	U.S. Government (For Use ONLY by U.S. Government Agencies)
Reel # Frame #	Departmental File Secret File
Conveying Party(les)	X Mark if additional names of conveying parties attached Execution Date Month Day Year
Name (line 1) Paul W. Dent	D1 24 01
Name (line 2)	
Second Party	Execution Date Month Day Year
Name (fine 1) Howard Eugene Holsho	ouser 01 18 01
Name (lino 2)	
Receiving Party	Mark if additional names of receiving parties attached
Name (kine 1) Ericsson, Inc.	babracon od ot inemuglaas as the decimal to be recorded to the talk as a safety and the
Name (line 2)	receiving party is not domiciled in the United States, an appointment of a domestic
Address (Hine 1) 7001 Development Dri	more an article of art
Address (line 2) P.O. Box 13969	saparate document from Assignment)
Address (line 3) Research Trinagle Pa	North Carolina 27709 State/Country Zio Code
Domestic Representative Name an	
Name	
Address (line 1)	
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Public burden reporting for title collection of information to selfmeted to everage approximately 30 minutes per Cover Shoet to be recorded, including time for revisating the document and guidant to deep the complete the Cover Sheet. Send comments regarding this burden estimate to the U.S. Patent and Tradement Office. Chief Information Officer. Weatington, D.C. 2021 and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Papermork Reduction Project (865)-0627, Weatington, D.C. 20501. See OMB Information Collection Chalgest Package 6031-0627, Patent and Tradement Assignment Procisios. DO NOT SEND REQUESTS TO RECORD ASSIGNMENT OCCUMENTE TO THIS ADDRESS.

Mail documents to be recorded with required cover sheet(s) information to: Commissioner of Patents and Trademarks, Box Assignments , Washington, D.C. 20231

FORM PTO-16 Explas 06/30/09 OMB 9551-0027		.S. Department of Commerce atent and Tredemark Office PATENT
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	William Willia	
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Marrie (une 1)		
Name (line 2)		Execution Date
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Name (line 2)]
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Address (line 1)		attached. (Designation must be a separate document from
Address (line 2)		Assignment.)
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FORM PTO Expires 06/50/99 0M8 0851-0027	-1619B	Page 2	U.S. Department of Commerce Patent and Tradement Office PATENT
Correspond	ent Name and Address	Area Code and Telephone Number	412/562-1893
Name	Bryan H. Opalko		
Address (line 1)	BUCHANAN INGERSOLL		
Address (line 2)	One Oxford Centre, 20t	th Floor	
Address (line 3)	Pittsburgh, PA 15219		
Address (line 4)			
Pages	Enter the total number of pa including any attachments.	iges of the attached conveyance doct	ument # 25
	Number(s) or Patent Num		If additional numbers attached
	he Patent Application Number or the i tent Application Number(s)	Patent Number (DO NOT ENTER BOTH number Pater)	ent Number(s)
09/770,804			
if this document	Is being filed together with a <u>new</u> Pate st named executing inventor.	ent Application, enter the date the patent applic	ation was Menth Day Year
Patent Coo	peration Treaty (PCT)	PCT PCT	PCT
	er PCT application number <u>v if</u> a U.S. Application Numbe		PCT
	not been assigned.	PCT PCT PCT	
Number of	Properties Enter the to	otal number of properties involved.	# 1
Fee Amour	t Fee Amount	t for Properties Listed (37 CFR 3.41):	: \$ 40.00
	l of Payment: Enc	losed X Deposit Account	
(Enter fo	r payment by deposit account or If ad	ditional fees can be charged to the account.) Deposit Account Number:	# 02-4553
		Authorization to charge additional fees:	Yes X No
Statement	and Signature		
To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Charges to deposit account are authorized, as indicated herein.			
Bryan H.	Opalko, Reg. No. 40.751	Dogt Gll	February 27, 2001
	e of Person Signing	Signature	Date

<u>ASSIGNMENT</u>

WHEREAS, We, Paul W. Dent, Howard Eugene Holshouser, John Charles Phillips, Rod Dolman and Ron Boesch, residing at Pittsboro, Chatham County, North Carolina, Efland, Orange County, North Carolina, Newhill, Wake County, North Carolina, Forest, Bedford County, Virginia, and Morrisville, Wake County, North Carolina respectively, have invented certain new and useful improvements in ADAPTIVE ANTENNA OPTIMIZATION NETWORK for which we have this day executed an application for United States Letters Patent.

AND WHEREAS, Ericsson Inc., a Delaware corporation, having a place of business at 7001 Development Drive, P. O. Box 13969, Research Triangle Park, North Carolina 27709, hereinafter called the "assignee", is desirous of acquiring the entire right, title and interest in and to said application and the inventions and improvements therein disclosed;

NOW, THEREFORE, in consideration of One (\$1.00) Dollar and other good and valuable consideration paid to us by said assignee, receipt whereof we acknowledge, we do hereby assign, sell, transfer, and set over unto said assignee the entire right, title, and interest in and to said application and the inventions and improvements therein disclosed for the United States and all foreign countries and any Letters Patent which may issue therefor in the United States and all foreign countries and all divisions, reissues, continuations, renewals, and/or extensions thereof including all priority rights under the International Convention associated therewith for each country and the Union, said assignee to have and to hold the interests herein assigned to the full ends of the terms of said Letters Patent and any and all divisions, reissues, continuations, renewals,

and/or extensions thereof, respectively, as fully and entirely as the same would have been held and enjoyed by us had this assignment not been made.

The Commissioner of Patents and Trademarks is requested to issue such Letters

Patent in accordance herewith. We covenant that we are the lawful owners of said application,
inventions, and improvements, that the same are unencumbered, that no license has been granted to
make, use or vend the said inventions or improvements or any of them, and that we have the full
right to make this assignment.

And for the consideration aforesaid, we agree jointly and individually that we will communicate to said assignee or the representatives thereof any facts known to us respecting said inventions and improvements, and will, upon request, but without expense to us, testify in any legal proceedings, sign all lawful papers, execute all divisional, reissue, continuation, renewal and/or extension applications, make all rightful oaths, and generally do all other and further lawful acts, deemed necessary or expedient by said assignee or by counsel for said assignee, to assist or enable said assignee to obtain and enforce full benefits from the rights and interests herein assigned. This

assignment shall be binding upon our heirs, executors, administrators, and/or assigns, and shall inure to the benefit of the successors, and/or assigns, as the case may be, of said assignee.

DATED: 24 JAN, 2001	Paul W. Dent	(SEAL)
, 2001	Howard Eugene Holshouser	(SEAL)
, 2001	John Charles Phillips	(SEAL)
, 2001	Rod Dolman	(SEAL)
, 2001	Ron Boesch	(SEAL)
State of Caroline County of Wake	: : ss: :	

Before me, a Notary Public in and for the said County and State, personally appeared PAUL W. DENT who acknowledged that he is the persons who executed the foregoing assignment and acknowledged it to be his free and voluntary act and deed.

Witness my hand and notarial seal this 27 day of

. 2001.

Notary Public

State of	_:		
County of	: ss: :		
Before me, a Not	ary Public in and for the	e said County and State, personally	,
appeared HOWARD EUGENE	HOLSHOUSER who ac	cknowledged that he is the persons	who
executed the foregoing assignment	ent and acknowledged it	to be his free and voluntary act and	d deed.
Witness my hand	l and notarial seal this _	day of	, 2001.
		Notary Public	
(NOTARIAL SEAL)			
State of			
County of	: SS: :		
Before me, a No	tary Public in and for th	e said County and State, personally	1
appeared JOHN CHARLES PH	ILLIPS who acknowled	ged that he is the persons who exe	cuted the
foregoing assignment and acknowledge	owledged it to be his free	e and voluntary act and deed.	
Witness my han	d and notarial seal this _	day of	, 2001
		Notary Public	-
(NOTARIAL SEAL)		riomey a notice	

State of	:		
County of	SS:		
Before me, a Nota	ry Public in and for the	said County and State, personally	
appeared ROD DOLMAN who ac	knowledged that he is t	he persons who executed the fore	going
assignment and acknowledged it t	o be his free and volunt	ary act and deed.	
Witness my hand a	and notarial seal this	day of	_, 2001.
		Notary Public	
(NOTARIAL SEAL)		`	
State of			
County of	SS:		
Before me, a Nota	ry Public in and for the	said County and State, personally	
appeared RON BOESCH who ack	cnowledged that he is th	e persons who executed the foreg	oing
assignment and acknowledged it t	o be his free and volunt	ary act and deed.	
Witness my hand a	and notarial seal this	day of	_, 2000.
		Notary Public	
(NOTARIAL SEAL)		ivolary f aduc	
(110 11 11 11 11 11 11 11 11 11 11 11 11			

ASSIGNMENT

WHEREAS, We, Paul W. Dent, Howard Eugene Holshouser, John Charles Phillips, Rod Dolman and Ron Boesch, residing at Pittsboro, Chatham County, North Carolina, Efland, Orange County, North Carolina, Newhill, Wake County, North Carolina, Forest, Bedford County, Virginia, and Morrisville, Wake County, North Carolina respectively, have invented certain new and useful improvements in ADAPTIVE ANTENNA OPTIMIZATION NETWORK for which we have this day executed an application for United States Letters Patent.

AND WHEREAS, Ericsson Inc., a Delaware corporation, having a place of business at 7001 Development Drive, P. O. Box 13969, Research Triangle Park, North Carolina 27709, hereinafter called the "assignee", is desirous of acquiring the entire right, title and interest in and to said application and the inventions and improvements therein disclosed;

NOW, THEREFORE, in consideration of One (\$1.00) Dollar and other good and valuable consideration paid to us by said assignee, receipt whereof we acknowledge, we do hereby assign, sell, transfer, and set over unto said assignee the entire right, title, and interest in and to said application and the inventions and improvements therein disclosed for the United States and all foreign countries and any Letters Patent which may issue therefor in the United States and all foreign countries and all divisions, reissues, continuations, renewals, and/or extensions thereof including all priority rights under the International Convention associated therewith for each country and the Union, said assignee to have and to hold the interests herein assigned to the full ends of the terms of said Letters Patent and any and all divisions, reissues, continuations, renewals,

and/or extensions thereof, respectively, as fully and entirely as the same would have been held and enjoyed by us had this assignment not been made.

The Commissioner of Patents and Trademarks is requested to issue such Letters Patent in accordance herewith. We covenant that we are the lawful owners of said application, inventions, and improvements, that the same are unencumbered, that no license has been granted to make, use or vend the said inventions or improvements or any of them, and that we have the full right to make this assignment.

And for the consideration aforesaid, we agree jointly and individually that we will communicate to said assignee or the representatives thereof any facts known to us respecting said inventions and improvements, and will, upon request, but without expense to us, testify in any legal proceedings, sign all lawful papers, execute all divisional, reissue, continuation, renewal and/or extension applications, make all rightful oaths, and generally do all other and further lawful acts, deemed necessary or expedient by said assignee or by counsel for said assignee, to assist or enable said assignee to obtain and enforce full benefits from the rights and interests herein assigned. This

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assignment shall be binding upon our heirs, executors, administrators, and/or assigns, and shall inure to the benefit of the successors, and/or assigns, as the case may be, of said assignee. DATED: (SEAL) , 2001 Paul W. Dent 18 January, 2001 (SEAL) , 2001 (SEAL) John Charles Phillips , 2001 (SEAL) Rod Dolman , 2001 (SEAL) Ron Boesch County of Before me, a Notary Public in and for the said County and State, personally appeared PAUL W. DENT who acknowledged that he is the persons who executed the foregoing assignment and acknowledged it to be his free and voluntary act and deed. Witness my hand and notarial seal this ____ day of _____, 2001. Notary Public

	arth Caraina
County of	Wake:
	Before me, a Notary Public in and for the said County and State, personally
appeared HO	WARD EUGENE HOLSHOUSER who acknowledged that he is the persons who
executed the	foregoing assignment and acknowledged it to be his free and voluntary act and deed.
	Witness my hand and notarial seal this 18th day of January, 2001
	Notary Public
(NOTARIA	L SEAL)
State of	:
County of	: SS:
	Before me, a Notary Public in and for the said County and State, personally
appeared JO	HN CHARLES PHILLIPS who acknowledged that he is the persons who executed the
foregoing as	signment and acknowledged it to be his free and voluntary act and deed.
	Witness my hand and notarial seal this day of, 2001
	Notary Public
(NOTARIA	L SEAL)

State of	:	
County of	: ss:	
Before me, a	a Notary Public in and for the said County and State, persona	lly
appeared ROD DOLMAN w	who acknowledged that he is the persons who executed the fo	oregoing
assignment and acknowledge	ged it to be his free and voluntary act and deed.	
' Witness my l	hand and notarial seal this day of	, 2001.
	Notary Public	
(NOTARIAL SEAL)	•	
State of		
County of	: 88: :	
Before me, a	a Notary Public in and for the said County and State, persona	ılly
	who acknowledged that he is the persons who executed the fo	regoing
appeared RON BOESCH will		
	ged it to be his free and voluntary act and deed.	
assignment and acknowledg	ged it to be his free and voluntary act and deed. hand and notarial seal this day of	, 2000.

(NOTARIAL SEAL)

Notary Public

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ASSIGNME<u>NT</u>

WHEREAS, We, Paul W. Dent, Howard Eugene Holshouser, John Charles Phillips, Rod Dolman and Ron Boesch, residing at Pittsboro, Chatham County, North Carolina, Efland, Orange County, North Carolina, Newhill, Wake County, North Carolina, Forest, Bedford County, Virginia, and Morrisville, Wake County, North Carolina respectively, have invented certain new and useful improvements in ADAPTIVE ANTENNA OPTIMIZATION NETWORK for which we have this day executed an application for United States Letters Patent.

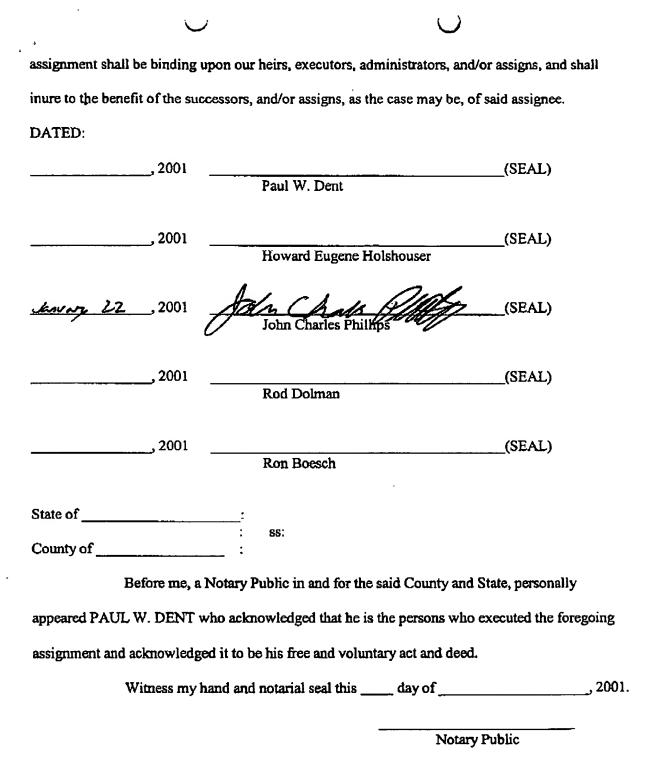
AND WHEREAS, Ericsson Inc., a Delaware corporation, having a place of business at 7001 Development Drive, P. O. Box 13969, Research Triangle Park, North Carolina 27709, hereinafter called the "assignee", is desirous of acquiring the entire right, title and interest in and to said application and the inventions and improvements therein disclosed;

NOW, THEREFORE, in consideration of One (\$1.00) Dollar and other good and valuable consideration paid to us by said assignee, receipt whereof we acknowledge, we do hereby assign, sell, transfer, and set over unto said assignee the entire right, title, and interest in and to said application and the inventions and improvements therein disclosed for the United States and all foreign countries and any Letters Patent which may issue therefor in the United States and all foreign countries and all divisions, reissues, continuations, renewals, and/or extensions thereof including all priority rights under the International Convention associated therewith for each country and the Union, said assignee to have and to hold the interests herein assigned to the full ends of the terms of said Letters Patent and any and all divisions, reissues, continuations, renewals,

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State of	_:		
County of	: \$8: :		
Before me, a Not	ary Public in and for the	said County and State, p	ersonally
appeared HOWARD EUGENE	HOLSHOUSER who ac	knowledged that he is the	persons who
executed the foregoing assignment	ent and acknowledged it	to be his free and volunta	ry act and deed.
Witness my hand	l and notarial seal this	day of	, 2001.
		Notary Public	
(NOTARIAL SEAL)			
State of North Carolina County of Duham	<u>;</u> _: ss:		
County of Duham			

appeared JOHN CHARLES PHILLIPS who acknowledged that he is the persons who executed the foregoing assignment and acknowledged it to be his free and voluntary act and deed.

Before me, a Notary Public in and for the said County and State, personally

Witness my hand and notarial seal this 22 day of January, 2001.

Notary Public

State of		_:		
•		: ss:		
	Before me, a Not	ary Public in and for	the said County and State, per	sonally
appeared RO	D DOLMAN who a	acknowledged that h	e is the persons who executed	the foregoing
assignment ar	nd acknowledged it	to be his free and vo	oluntary act and deed.	
	Witness my hand	l and notarial seal thi	s day of	, 2001.
			Notary Public	
(NOTARIAI	L SEAL)		•	
	·			
State of		_:		
		: ss:		
	Before me, a Not	tary Public in and for	the said County and State, per	sonally
appeared RO	N BOESCH who a	cknowledged that he	is the persons who executed the	ne foregoing
assignment a	nd acknowledged it	to be his free and ve	oluntary act and deed.	
	Witness my hand	l and notarial seal thi	is day of	, 2000.
() 10m A 77 - 1			Notary Public	
(NOTARIA)	L.SEAL)			

02/19/02

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1

and/or extensions thereof, respectively, as fully and entirely as the same would have been held and enjoyed by us had this assignment not been made.

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Patent in accordance herewith. We covenant that we are the lawful owners of said application,
inventions, and improvements, that the same are unencumbered, that no license has been granted to
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inure to the benefit of the successors, and/or as	
DATED:	
, 2001Paul W.	Dent (SEAL)
, 2001	(SEAL) Eugene Holshouser
, 2001 John Ch	arles Phillips
1/23/,2001 Lel (A	alman (SEAL)
, 2001Ron Boo	(SEAL)
State of: ss: County of:	
	and for the said County and State, personally
	I that he is the persons who executed the foregoing
assignment and acknowledged it to be his free	and voluntary act and deed.
Witness my hand and notarial s	seal this day of, 2001
	Notary Public
(NOTARIAL SEAL)	

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Witness my hand and notarial sea	al this day of	. 2001 ر
foregoing assignment and acknowledged it to be	·	
appeared JOHN CHARLES PHILLIPS who ack	nowledged that he is the persons	s who executed the
Before me, a Notary Public in and	d for the said County and State,	personally
County of :		
State of : : ss:		
(NOTARIAL SEAL)		
	Notary Public	:
		-
Witness my hand and notarial sea	l this day of	, 2001.
executed the foregoing assignment and acknowle	_	
appeared HOWARD EUGENE HOLSHOUSER	_	-
Before me, a Notary Public in and		
County of :		
: ss:		
State of :		

State of NORTH CARCIUM	a	
State of <u>North Carcium</u> County of <u>Wake</u>	: ss: :	
Before me, a Notar	y Public in and for the said County and State, personally	
appeared ROD DOLMAN who ac	knowledged that he is the persons who executed the foregoing	
assignment and acknowledged it to	be his free and voluntary act and deed.	
Witness my hand a	nd notarial seal this 23rd day of January, 200	01.
	Notary Public	
(NOTARIAL SEAL)	·	
State of	:	
County of	: ss: :	
Before me, a Notar	ry Public in and for the said County and State, personally	
appeared RON BOESCH who ack	knowledged that he is the persons who executed the foregoing	
assignment and acknowledged it to	o be his free and voluntary act and deed.	
Witness my hand a	and notarial seal this day of, 20	00
	Notary Public	
	1 TO THE P A WOLLD	

ASSIGNME<u>NT</u>

WHEREAS, We, Paul W. Dent, Howard Eugene Holshouser, John Charles Phillips, Rod Dolman and Ron Boesch, residing at Pittsboro, Chatham County, North Carolina, Efland, Orange County, North Carolina, Newhill, Wake County, North Carolina, Forest, Bedford County, Virginia, and Morrisville, Wake County, North Carolina respectively, have invented certain new and useful improvements in ADAPTIVE ANTENNA OPTIMIZATION NETWORK for which we have this day executed an application for United States Letters Patent.

AND WHEREAS, Ericsson Inc., a Delaware corporation, having a place of business at 7001 Development Drive, P. O. Box 13969, Research Triangle Park, North Carolina 27709, hereinafter called the "assignee", is desirous of acquiring the entire right, title and interest in and to said application and the inventions and improvements therein disclosed;

NOW, THEREFORE, in consideration of One (\$1.00) Dollar and other good and valuable consideration paid to us by said assignee, receipt whereof we acknowledge, we do hereby assign, sell, transfer, and set over unto said assignee the entire right, title, and interest in and to said application and the inventions and improvements therein disclosed for the United States and all foreign countries and any Letters Patent which may issue therefor in the United States and all foreign countries and all divisions, reissues, continuations, renewals, and/or extensions thereof including all priority rights under the International Convention associated therewith for each country and the Union, said assignee to have and to hold the interests herein assigned to the full ends of the terms of said Letters Patent and any and all divisions, reissues, continuations, renewals, R2/19/R2

and/or extensions thereof, respectively, as fully and entirely as the same would have been held and enjoyed by us had this assignment not been made.

The Commissioner of Patents and Trademarks is requested to issue such Letters Patent in accordance herewith. We covenant that we are the lawful owners of said application, inventions, and improvements, that the same are unencumbered, that no license has been granted to make, use or vend the said inventions or improvements or any of them, and that we have the full right to make this assignment.

And for the consideration aforesaid, we agree jointly and individually that we will communicate to said assignee or the representatives thereof any facts known to us respecting said inventions and improvements, and will, upon request, but without expense to us, testify in any legal proceedings, sign all lawful papers, execute all divisional, reissue, continuation, renewal and/or extension applications, make all rightful oaths, and generally do all other and further lawful acts, deemed necessary or expedient by said assignee or by counsel for said assignee, to assist or enable said assignee to obtain and enforce full benefits from the rights and interests herein assigned. This

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assignment shall be binding upon our heirs, executors, administrators, and/or assigns, and shall inure to the benefit of the successors, and/or assigns, as the case may be, of said assignee. DATED: (SEAL) , 2001 Paul W. Dent (SEAL) , 2001 Howard Eugene Holshouser (SEAL) _____, 2001 John Charles Phillips _____, 2001 _(\$EAL) Rod Dolman 19 Jan_____ 2001 (SEAL) County of _____ Before me, a Notary Public in and for the said County and State, personally appeared PAUL W. DENT who acknowledged that he is the persons who executed the foregoing assignment and acknowledged it to be his free and voluntary act and deed. Witness my hand and notarial seal this ____ day of _____, 2001. Notary Public (NOTARIAL SEAL)

State of:		
County of : ss:		
Before me, a Notary Public in and for the	said County and State, personally	
appeared HOWARD EUGENE HOLSHOUSER who ack	cnowledged that he is the persons who	
executed the foregoing assignment and acknowledged it to	o be his free and voluntary act and dee	.d .
Witness my hand and notarial seal this	day of, 20	001.
	Notary Public	
(NOTARIAL SEAL)		
State of:		
County of : ss:		
Before me, a Notary Public in and for the	said County and State, personally	
appeared JOHN CHARLES PHILLIPS who acknowledg	ged that he is the persons who executed	l the
foregoing assignment and acknowledged it to be his free	and voluntary act and deed.	
Witness my hand and notarial seal this	day of, 2	:001
	Notary Public	
(NOTARIAL SEAL)		

State of:	
County of : ss:	
Before me, a Notary Public in and for the said C	County and State, personally
appeared ROD DOLMAN who acknowledged that he is the pe	ersons who executed the foregoing
assignment and acknowledged it to be his free and voluntary ac	ct and deed.
Witness my hand and notarial seal this da	ay of, 2001.
	Notary Public
(NOTARIAL SEAL)	•
State of North Carolina:	
State of <u>North Carolina</u> : County of <u>Wake</u> : ss:	
Before me, a Notary Public in and for the said (County and State, personally
appeared RON BOESCH who acknowledged that he is the per-	sons who executed the foregoing
assignment and acknowledged it to be his free and voluntary ac	
Witness my hand and notarial seal this 19 da	ay of January , 2000.
Bo	reban J. Gularell

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Notary Public

My Commission Expires On March 1, 2003

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FORM PTO- Explica 06/30/29 OMB 0651-0027	619A	U.s. Pat	Department of Commerce ont and Trademark Office PATENT	
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TO: The Comm	ssioner of Patents and Trademar	PATENTS ONLY ks: Please record the attached original documents	e) or coovlies)	
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Name (line 1)	Paul W. Dent		01 24 01	
Name (line 2)			Execution Date	
Second Party Name (line 1)	Howard Eugene Holshouse		Month Day Year	
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Name (line 2)			ļ	
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Name (line 1)	Ericason, Inc.		If document to be recorded is an assignment and the	
Name (Rne 2)			receiving party is not domicited in the United States, an appointment	
Address (line 1)	Address (line 1) 7001 Development Drive of a domestic representative is uttached. (Designation must be e			
Address (line 2)	P.O. Box 13969		superato document from Assignment)	
Address (line 3)	Research Trinagle Park			
Domestic Representative Name and Address Enter for the first Receiving Party only.				
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Name (line 2)		
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Name (line 1) R	od Dolman	01 23 01
Name (line 2)		_
.		Execution Date Month Day Year
Name (line 1) R	on D. Boesch	01 19 01
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Correspond	ent Name and A	ddress Area	Code and Teleph	one Number 412/	562-1893
Name	Bryan H. Opall	(O			
Address (IIne 1)	BUCHANAN INGER	RSOLL			
Address (line 2)	One Oxford Cer	tre, 20th Flo	or		
Address (line 3)	Pittsburgh, PA	15219			
Address (line 4)					
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Nam	e of Person Signing	•	Signature		Date